

DEPARTMENT OF THE ARMY
UNITED STATES ARMY DENTAL ACTIVITY
Fort Huachuca, Arizona 85613-7040

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Medical Services
EXPOSURE CONTROL PLAN/INFECTION CONTROL PLAN

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1. HISTORY: This issue publishes a revision of this publication. Because the publication has been extensively revised, the changed portions have not been highlighted.

2. PURPOSE: To implement current Office of the Surgeon General (OTSG), U.S. Army Dental Command (DENCOM), and U.S. Army Dental Activity (DENTAC) Policy on Infection Control and Exposure Control. To provide a teaching, training, and operational guide for safe infection control practices at all dental facilities. The goal of any such program is to protect patients and staff by reducing potential pathogens and creating a barrier system to minimize exposure and cross contamination.

3. REFERENCES: See appendix A for references.

4. EXPLANATION OF ABBREVIATIONS AND TERMS: Abbreviations and special terms used in this publication are found in the glossary.

5. SCOPE: The provisions of this pamphlet are applicable to all personnel assigned or attached (including volunteers) to the USA DENTAC, Fort Huachuca, Arizona.

6. RESPONSIBILITIES: Infection control is the obligation of all that work within U.S. Army dental facilities. Direct responsibilities include:

a. Commander: Direct the establishment of infection control operating procedures commensurate with current regulations, guidelines, and directives of OTSG and DENCOM.

b. Chairman of the Quality Improvement (QI) Committee: Guide and monitor infection control practices within the dental activity through the QI Program.

c. DENTAC Infection/Exposure Control Officer:

(1) Institute and revise as necessary the Infection Control and Exposure Control Plans.

(2) Serve as the commander's consultant in areas of infection control.

(3) Direct the monitoring of infection control at the clinic level.

(4) Receive status reports through Team Leaders' input.

(5) Direct training to ensure safety and compliance with standards of infection control for all members of the dental activity.

(6) Modify or extend procedures to meet the current governmental and professional guidance for infection control.

(7) Provide input on infection control practices to the QI Committee.

(8) Ensure investigation of all exposure incidents. Document the review and any recommendations through QI Committee or Risk Management.

(9) Represent Dental Activity on hospital Infection Control Committee (AR 40-68).

d. Officer-in-Charge (OIC):

(1) Ensure personnel assigned to clinics are thoroughly knowledgeable concerning current infection control policies and procedures.

(2) Ensure that all assigned personnel follow current infection control and safety practices.

(3) Support the team leaders in the performance of their infection/exposure control duties.

(4) Classify all clinic personnel according to levels of risk of exposure as defined in OSHA guidelines (appendix C).

e. Team Leaders and Team NCOs:

(1) Monitor and inspect all aspects of infection and exposure control procedures to ensure compliance. Work closely with OIC to obtain their goal. Document monitoring and evaluation of work practice and engineering controls and adjust policies as needed.

(2) Train personnel regularly.

(3) Keep a training log in accordance with regulatory guidance.

(4) Provide information (monthly infection control checklists) (appendix U) to the Infection Control Officer.

f. Team Non-Commissioned Officer-in-Charge (NCOIC):

(1) Ensure personnel are thoroughly knowledgeable with policies and procedures as they relate to infection control. Provide instruction as needed.

(2) Monitor and inspect procedures to ensure they are being carried out.

(3) Work with Team Leader and Infection Control Officer to ensure compliance with policies and procedures.

(4) Maintain a listing of personnel which delineates team personnel into work categories according to OSHA guidelines (appendix C). Provide list to OIC as needed to maintain accuracy of DENTAC roster.

g. Dental Laboratory Officer: Monitor and ensure compliance with clinical prosthodontic and laboratory infection control procedures.

h. Dental Laboratory Manager: Monitor and practice all aspects of infection control in the dental laboratory setting. Ensure others using the laboratory are following recommended infection control practices.

i. Dental Care Providers:

(1) Follow infection control procedures.

(2) Use universal precautions and barrier techniques.

(3) Sterilize and maintain equipment in accordance with prescribed standards (TB MED 266).

(4) Obtain/maintain vaccination against Hepatitis B. (Mandatory for military and for civilian employees hired after 1 January 1997. Strongly encouraged for all other civilians.)

(5) Report through the appropriate supervisory chain all injuries involving sharps or other exposures to potentially infectious body fluids. See (appendix T) Percutaneous (Needlestick) Injury Procedures.

7. SAFETY.

a. Safety and infection control always go together.

b. Safety is important for all members of the Dental Care Team, but is also a must for the patients' protection.

c. Needle/sharps injuries are a major area for safety concern. Use special care in handling and disposing. If authorized to recap needles, never recap by hand, cotton pliers are ideal for holding the needle cover during recapping or use a scoop technique. Protect employees, patients and housekeeping personnel. Always use the provided puncture resistant containers to dispose of needles/sharps. Follow established protocols for obtaining proper treatment should an injury occur. See appendix T.

d. Use extreme caution when disinfecting electrical equipment. Do not allow disinfectant liquids to flood internal aspects.

e. Accidents are preventable. Clear thinking and planning assist in assuring safety. When in doubt, ask for clarification or instruction.

8. INFECTION CONTROL: Infection control impacts on all personnel and all clinical and laboratory procedures. It is a complex topic. The basic goal of an infection control program is to prevent cross contamination between patients and health care providers (patient to health care worker, health care worker to patients, and patient to patient). Because any Standard Operating Procedure (SOP) for infection control must cover vast areas of information, there is a potential for "information overload." This SOP will present a topographical overview of all aspects of infection control. Each area will be addressed briefly. Specific, more detailed information will be presented by referring the reader to an appendix after each topical area has been addressed. It must be clearly understood that all personnel are responsible for all the information.

9. RISK, SUSCEPTIBILITY, AND MODES OF TRANSMISSION: Diseases can be transmitted by blood and saliva. The mode of transmission may vary from direct sharp instrument injury (most implicated) to aerosols (least implicated) (appendix B).

10. CLASSIFICATION OF PERSONNEL AND TASKS: OTSG policy requires that all personnel working within the DENTAC be classified according to the level of risk of exposure to blood or other potentially infectious material (OPIM) that they are subject to while in the work environment. This requirement is in keeping with OSHA guidelines that require that tasks performed in dental clinics be evaluated and classified categorically (appendix C).

11. METHODS OF COMPLIANCE: Universal precautions, engineering controls and work practice controls will be used to minimize or eliminate employee exposure to bloodborne pathogens. Appendices D through S describe these controls in detail. It is the responsibility of all key personnel to monitor these controls and identify changes that will improve employee protection.

a. Personal hygiene (appendix D):

(1) Wear a clean uniform daily. Change if soiled. Protective garments may be worn over uniforms, but other personal clothing should not be worn over protective garments (e.g., sweaters).

(2) Keep hair short and neat. Hair may be covered if extended periods of exposure to body fluids is anticipated (e.g., aerosols).

(3) Do not wear jewelry on the hands or wrists while providing patient care or performing laboratory procedures.

(4) Wash hands before and after patient care, before eating and before leaving the clinic. Use anti-microbial soap. No bar soap should be used anywhere in the facility. Consult TB MED 266 or appendix E for handwashing techniques.

b. Face masks (surgical masks), eye protection, and gloves. Surgical masks, protective garments (scrubs), and eye protection will be worn during patient care and clean up procedures when spatter from contaminated materials is anticipated, during handpiece maintenance procedures and during specified

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laboratory procedures. Gloves will be changed between every patient. Surgical masks should be changed frequently as per appendix F guideline instructions. Eyewear must be cleaned between each patient. Face shields make excellent substitution for eyeglasses but do NOT substitute for surgical masks when dealing with aerosols (appendix G).

c. Control of dental treatment aerosols. Even though much effort and time is devoted to the sterilization/disinfection of instruments and surfaces, it is also important to prevent the formation and spread of dental aerosols (appendix G).

(1) The use of three 10-second rinses with an anti-microbial mouthwash has been shown to temporarily reduce oral microbe counts by 97 percent.

(2) Use a rubber dam whenever possible.

(3) Use high speed, high volume suction.

(4) Polish with rubber points and finishing burs, not bristle brushes.

(5) Hand scaling produces less aerosols than sonic or ultrasonic scalers.

(6) Wear proper personal protective equipment when working on all patients: Masks, gloves, gowns/smocks, and eye protection when splash is anticipated.

(7) Cover ultrasonic instrument cleaners while they operate.

(8) No eating or drinking in the laboratory or clinic operating areas. No smoking anywhere in the clinic.

d. Infection control for patient treatment (appendix H).

(1) There are multiple important aspects to infection control before, during, and after patient care.

(2) Perform pre-care. Evaluate the medical status and history of patient.

(3) Keep immunizations current. Hepatitis B immunization or acquired immunity is mandatory for military and for civilian employees hired after 1 January 1997. Strongly recommended and available for all other civilians.

(4) Follow prescribed procedures. Prescribed engineering and work practice controls are present for the protection of both the patient and the employee.

(5) Sterilize and/or disinfect surfaces and equipment as described. (Appendix I; TB MED 266, 31 May 1995).

e. Sterilization of handpieces, scaler tips and three-way air/water syringe tips.

(1) Sterilization of handpieces, three way air/water syringe tips and scalers or scaler tips is mandatory. It is extremely important that the manufacturer's instructions be followed to the letter. NO MAINTENANCE STEP SHOULD EVER BE OMITTED, especially lubrication requirements. Failure to properly maintain handpieces that are sterilized, represents failure in job performance, is potentially very costly and could result in a compromised dental mission. It is understood that increased maintenance requirements will take time to perform to the high level of excellence required to keep sterilized handpieces operating effectively.

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(2) Handpiece sterilization policy:

(a) All high-speed handpieces will be sterilized between patients by acceptable methods (steam under pressure, chemical vapor, dry heat).

(b) All slow speed handpiece motors of one-piece design that enter the oral cavity will be sterilized between patients by acceptable methods.

(c) All slow speed motors utilizing removable sleeve/contra-angle design should be sterilized between patients by acceptable methods whenever possible or use the procedure in paragraph (d).

(d) Alternate sterilization procedures for slow speed handpiece motors:

1 At the beginning of the patient treatment day, a sterilized motor will be attached to the dental unit.

2 The motor will be covered with an appropriately designed barrier protection sleeve.

3 Sterilized attachments will be used during patient treatment.

4 Removal of the attachments and barrier protective device after treatment will be accomplished in such a way as to ensure no contamination of the slow speed motor occurs.

5 Proper aseptic technique will be followed when placing the new barrier for subsequent patients. If any doubt exists as to possible contamination of the motor, it should be removed and replaced with a sterile motor.

6 The motor will be cleaned and sterilized at the end of the patient treatment day according to the manufacturer's instructions.

7 Chemical disinfection of slow speed motors between patients is NOT ACCEPTABLE! Barrier protection is the only method allowed.

f. Surface disinfection (appendix I):

(1) It is important to disinfect the dental chair, bracket table, cuspidors, counter tops, cart tops, instrument trays, handpiece holders, air drive hoses, three-way air/water syringe handles, light handles, etc. between each patient and at the end of the patient treatment day.

(2) Recent developments in disinfection agents indicate that several agents have been accepted by the Environmental Protection Agency as intermediate and high level agents. Each agent has special instruction on mixing, shelf life, surface contact time (3 to 10 minutes), and handling characteristics, etc.

(3) It must be understood that each agent has advantages and disadvantages. Agents must be correctly used. For example, an agent requiring 10 minutes to act cannot be used for only 3 minutes. Agents should be chosen intelligently. For example, if one material shows a distinct advantage in disinfecting dental impressions but another agent which damages the impression is chosen because it "smells nice," that would be a poor choice.

(4) Spraying is the best surface wetting method. Although in hard to reach areas, spraying on an applicator then wiping may be the only controllable method of application. When using spray bottles, a stream should be produced, not an aerosol.

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(5) Failure to follow the manufacturer's instructions may affect the efficacy of any agent! All Hazard Communication and chemical safety data must be followed.

(6) Acceptable surface agents are subject to approval by the DENTAC commander.

g. MEDCOM/DENCOM Guidelines for the care of Human Immunodeficiency Virus (HIV) infected patients and oral problems related to HIV infection (appendix J).

h. Dental laboratory infection control (appendix K):

(1) Prosthodontic procedures--Impression and prosthetic devices require disinfection before these items are taken to the production area of the laboratory.

(2) Infection control procedures are specific for handling of impressions, prosthetics, casts, etc. Handle equipment and supplies appropriately.

i. Dental radiology: Procedures for infection control must also be followed in dental radiology areas (appendix L).

j. Daily checklists for infection control. These or other local lists should be readily available as applicable in the bay area, lab, or radiology area, preferably where health care workers can readily refer to these basic guidelines.

(1) General checklist for all clinical patient care sections (appendix M).

(2) Radiology checklist (appendix N).

(3) Laboratory checklist (appendix O).

k. Specific information concerning the management of sharps in the dental environment (appendix P).

l. Medically regulated waste (appendix Q). Also see AR 40-5 and Federal/State Environmental Protection Agency (EPA) regulations, and MEDDAC Regulation 40-131.

m. Guidelines concerning Tuberculosis in the Dental Health Care Facility (appendix R).

n. Latex allergy policies and recommendations (appendix S).

o. The bloodborne pathogen standard (29CFR 1910.1030).

12. HOUSEKEEPING.

a. A schedule of routine cleaning will be established and maintained for each clinical area based on location, type of surface, type of soil and tasks or procedures performed in that area.

b. All bins, pails, cans and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or OPIM shall be inspected and decontaminated on a regularly scheduled basis. They shall be cleaned and decontaminated immediately or as soon as possible upon visible contamination.

13. HEPATITIS B VIRUS VACCINE AND POST EXPOSURE EVALUATION:

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a. The Hepatitis B virus (HBV) vaccine is mandatory for all military personnel and civilian personnel hired after 1 January 1997. It is recommended and provided without charge to all other civilian employees and volunteers who may have occupational exposure to bloodborne pathogens. Post exposure evaluation and follow-up will be provided to all employees who have an exposure incident.

b. Medical evaluations and procedures involving the hepatitis B vaccine and post exposure evaluations and follow-up will be:

- (1) Made available at no cost to the employee.
- (2) Made available at a reasonable time and place.
- (3) Performed under the supervision of an appropriate health care professional.
- (4) Provided according to the recommendations of the U.S. Public Health Service.

c. Hepatitis B vaccination shall be made available after the employee has received training in occupational exposure and within 10 working days of initial assignment to occupational exposure. Hepatitis B vaccination shall be made available to all employees who have occupational exposure; unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. Participation in a prescreening program shall not be a prerequisite for receiving the vaccination.

(1) All employees who decline the Hepatitis B vaccination shall sign the OSHA required waiver indicating their informed refusal. If the employee decides at a later date, while still covered by the standard, to accept the vaccination, the vaccination shall be made available. See 29 CFR 1910.1030 for the proper format for the declination form.

(2) All future recommendations concerning the Hepatitis B vaccination made by the U.S. Public Health Service shall be followed.

d. All exposure incidents shall be reported, investigated, and documented. The Exposure/Infection Control Officer or the Risk Management Officer must report the results of the investigation to the Quality Improvement Committee. Following the report of an exposure incident, the exposed employee shall immediately receive a confidential medical evaluation and follow-up, including at least:

(1) Documentation of the route of exposure and the circumstances of the incident.

(2) Identification and documentation of the source individual, unless that identification is unfeasible or prohibited by state or local laws.

(3) The source individual's blood shall be tested as soon as possible. Consent may be required from the source individual. If consent is not obtained, it must be documented in the evaluation report. When the source individuals consent is not required by law, the source individuals blood shall be tested as soon as possible.

(4) When the source individual is already known to be positive for a bloodborne pathogen, testing for that source individual need not be repeated.

(5) Results of the source individual's testing shall be made available to the exposed employee. The employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

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(6) The exposed employee's blood shall be collected as soon as possible and tested after consent is obtained (where law requires consent).

(7) The employee will be offered the option of having their blood collected for testing for the HBV and HIV serological status. If the employee does not desire testing, the blood will be preserved for up to 90 days in case the employee changes his mind.

(8) The following information must be provided to the health care provider who is responsible for the Hepatitis B Vaccination and Post Exposure Follow-up Program:

(a) A copy of 29 CFR 1910.1030.

(b) A written description of the exposed employee's duties as they relate to the exposure incident.

(c) Written documentation of the route of exposure and the circumstances under which the exposure occurred.

(d) Results of the source individual's blood testing (if available).

(e) All medical records relevant to the appropriate treatment of the employee including vaccination status.

(9) The written opinion of the health care provider shall be obtained within 15 days. A copy of this report must be given to the employee. The report will consist of:

(a) The health care provider's written opinion for HBV vaccination shall be limited to whether HBV vaccination is indicated, and if that employee has received such vaccination.

(b) The health care provider's written opinion for post exposure follow-up shall be limited to:

1 A statement that the employee has been informed of the results of the evaluation.

2 A statement that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

3 ALL OTHER FINDINGS OR DIAGNOSIS SHALL REMAIN CONFIDENTIAL AND SHALL NOT BE INCLUDED IN THE WRITTEN REPORT.

e. Standard safety and accident reporting documents and other OSHA accident information shall also be completed as applicable on all exposure incidents. See appendix T.

f. The occupational health or preventive medicine section of local medical facilities is a point of contact on the health care and reporting requirements of exposure incidents.

14. LABELS AND SIGNS:

a. The universal biohazard labels, signs, or colors must be used on all containers of regulated waste, refrigerators and freezers or other cabinets where blood or other potentially infectious material is stored and other containers used to store, transport, or ship blood or other potentially infectious materials.

b. Blood products released for transfusion or other clinical use are exempted from these labeling requirements.

c. Equipment that cannot be decontaminated needs to be properly labeled before turn-in or maintenance procedures.

15. INFORMATION AND TRAINING: The Dental Activity Infection/Exposure Control Officer shall oversee all training. It will cover the required subjects listed in 29 CFR 1910.1030. A question/answer or interactive training period must be included and documented on training in exposure control/OSHA standards. Other training in infection control should be conducted as needed. The level of infection control training and content will be determined by evaluations of clinical operations based on DENCOM policy, Command Inspection Programs, and professional organizations' current guidance (American Dental Association, Centers for Disease Control and Prevention, etc.). New employees must receive proper training and HBV vaccination information within 10 days of employment. Training in infection control and OSHA compliance for new employees is mandatory. Separate records of the new employee training should be kept for 3 years.

16. RECORDKEEPING.

a. Medical records will be established for each employee with occupational exposure potential. They may be kept and maintained by the clinic, DENTAC, or the health care facility providing the medical care for the dental facility. They must be available for the employee and kept in accordance with OSHA Standard 29 CFR 1910.30. These records shall be kept confidential and maintained for the duration of employment plus 30 years. The records will include:

- (1) Name and social security number of employee.
- (2) Copy of the employee's HBV vaccination status, including any vaccination dates.
- (3) A copy of all results of examinations, medical testing, and follow-up procedures.
- (4) A copy of the information provided to the health care provider, including a description of the employee's duties as they relate to any exposure incident, documentation of routes of exposure and circumstances of any exposure incident.

b. Training records will be maintained for 3 years from the date of training and shall include:

- (1) Date of training session.
- (2) Outline of material presented.
- (3) Name and qualification of trainer.
- (4) Name and job title of persons attending the training.

17. EVALUATION AND REVIEW: The DENTAC Infection Control/Exposure Officer shall conduct a review on an annual basis of the Infection Control/Exposure Control Program. Review of the effectiveness of the program and updating the program as needed is mandatory.

18. DATES OF IMPLEMENTATION: All provisions required by the OSHA Standard 29 CFR 1910.1030 will be implemented by the effective date of that document.

The proponent of this publication is the Infection Control Officer. Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, U.S. Army Dental Activity, ATTN: Infection Control Officer, Fort Huachuca, AZ 85613-7040.

//Original Signed By//

HARLAND G. LEWIS, JR.
Colonel, Dental Corps
Commanding

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Appendix A

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Appendix B

RISK, SUSCEPTIBILITY AND MODES OF TRANSMISSION

1. Risk and Susceptibility: There are many serious diseases that are transmitted by saliva and blood. The susceptibility to infections depends upon their concentration and virulence. Some of the high-risk groups include Hepatitis B, tuberculosis, herpes and many other virulent, viral or spore-forming bacterial infections. Some of the diseases that are less susceptible to transmission but which are no less dangerous include HIV, syphilis, measles, mumps, and other fairly fragile organisms. Spore-forming bacteria and some viruses remain inert on surfaces for long periods of time and become active when the appropriate hosts or host conditions are present.

2. Modes of Transmission: The various modes of transmission of infectious diseases are listed below:

a. Direct percutaneous inoculation by needle or sharp object. This is the most common mode of actual transmission.

b. Non-needle percutaneous inoculation resulting from scratches, scrapes, burns or dermatitis on the skin. Even indiscernible nicks or cuts have been incriminated in disease transmissions thus providing ample justification for consistently wearing gloves during patient treatment.

c. Introduction of blood, serum, or infective secretions onto mucosal surfaces. The risk of this type of exposure may be lessened most efficiently by wearing face protection (glasses with side shields or face shields and surgical masks) to stop splatter contamination of the eyes, mouth, and nose.

d. Indirect transfer of infective serum via environmental surfaces. This mode is one of the least efficient of all, but hepatitis B virus does survive for considerable periods of time after drying on inanimate surfaces. Thorough disinfecting of work surfaces and disposable barrier techniques such as aluminum foil or plastic wrap on hard to clean surfaces will keep this risk to a minimum.

e. The last method of transmission is aerosol transmission and splatter. This is the least implicated system. It can be controlled by having the patient rinse, using high speed evacuation, using a rubber dam, use of mask and glove barriers and avoiding the use of brushes in polishing.

Appendix C

CLASSIFICATION OF PERSONNEL AND TASKS ACCORDING TO LEVELS OF RISK OF EXPOSURE
AS DEFINED IN OSHA GUIDELINES

1. OTSG policy requires that all personnel working within the Dental Activity be classified according to the level of risk of exposure, which they are subject to in the work environment. This requirement is in keeping with OSHA guidelines requiring that tasks performed in dental clinics be evaluated and classified into one of the below listed categories.

a. Category 1: Tasks that involve exposure to blood, body fluids or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with blood, body tissues or fluids, or a potential for spills or splashes, are category 1 tasks. Use of appropriate protective measures are required for every employee engaged in category 1 tasks. Most, although not necessarily all, tasks performed by the dentist, hygienist, dental assistant, radiology technician, and some laboratory technicians would fall into this category.

b. Category 2: Tasks that involve no exposure to blood, body fluids or tissues, but exposure or potential exposure to blood may be required as a condition of employment. Appropriate protective measures are readily available to every employee engaged in category 2 tasks. Clerical or nonprofessional workers who may as a part of their duties, help clean up the dental operator, handle instruments, or patient materials to be sent to dental laboratories would be classified as category 2. TASKS THAT PLACE A CATEGORY 2 EMPLOYEE AT RISK MUST BE IDENTIFIED.

c. Category 3: Tasks that involve no exposure to blood, body fluids or tissues. The normal work routine involves no exposure to blood, body tissues or fluids. Personnel who perform these duties are not called upon as a part of their employment to perform or assist in emergency medical care or first aid or to be potentially exposed in some other way. A receptionist or clerk who does not handle dental instruments or materials would be a category 3 worker.

NOTE: These classifications are not rigid and there may be crossover, depending on the job performed.

2. Examples of Classifications:

a. Category 1: Dentist, hygienist, dental assistant, laboratory technician.

b. Category 2: NCOIC, supply technician.

c. Category 3: Receptionist.

Any task related to dental assisting or operator clean-up will require adherence to all requirements placed on category 1 personnel.

SUPPLY TECHNICIAN: Any task related to handling potentially contaminated equipment will require adherence to all requirements placed on category 1 personnel.

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Appendix D

PERSONAL HYGIENE

1. Clothing: Protective uniforms (scrubs) should be changed daily. They should be capable of withstanding frequent and multiple washing. They should be made from cotton/synthetic blends or synthetic materials, which retain fewer microbes and last longer than 100 percent cotton fabrics. Uniforms designated as PROTECTIVE garments must be kept at the place of duty. Wearing a protective garment at home at the end of the day may bring unwanted micro-organisms into a household, especially to susceptible children. The choice of sleeve length and other body coverage is defined by the procedure being performed, no one garment or policy can cover all clinical areas or procedures. OSHA regulations are very specific and should be consulted to help make the final decision on types of personal protective garments being worn. OSHA regulations require employees to remove or cover protective garments before leaving the work area. Saliva, water aerosols, and blood easily soil garments after limited use and make the protective garment highly contaminated. It makes little sense to sterilize, disinfect, and treat instruments and work surfaces and yet wear grossly contaminated clothing. Additional personal clothing must NOT be placed over protective garments, e.g. sweaters. Protective garments CAN be worn over uniforms or other clinic attire.

2. Hair Style: All personnel should have well managed hair, preferably short. Long hair should be kept in a bun or otherwise restrained or covered. Hair is a body surface area potentially exposed to aerosols or splatter.

3. Jewelry: Jewelry on the hands and wrists will not be worn during patient treatment or clean up procedures because they offer protection to microbes and interfere with hand and arm washing. Jewelry can also compromise glove integrity. Jewelry and watches are easily contaminated during splatter procedures.

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Appendix E

HAND WASHING

1. Skin Flora: The skin harbors two types of flora, resident and transient. Resident organisms can survive and multiply on the skin, can be cultured repeatedly, are usually of low virulence and are not easily removed. Conversely, transient bacteria do not readily survive and multiply on the skin and are not firmly attached. It has been shown that the mere mechanical action of rubbing the hands together and rinsing them under running water is an important aspect in the removal of transient organisms.

2. Hand washing is considered to be one of the most important procedures in preventing infections. The purpose of hand washing is to remove resident bacteria and transient organisms acquired from contact with patients or contaminated surfaces.

3. Any approved anti-microbial liquid soap (chlorhexidine gluconate, for example) can achieve satisfactory results. Bar soap should be avoided as it has been shown to harbor and even allow micro-organisms to grow and multiply. Clinic latrines should also be provided with liquid soap, not bar soap.

4. Hand Washing techniques: A rigid hand washing policy must be followed by all personnel involved with patient care.

a. Beginning of the work day:

(1) Remove all jewelry, check hands for cuts and abrasions.

(2) Fingernails: Fingernails must be trimmed and cleaned, utilizing a nail cleaner. False fingernails or nail polish will not be worn. Contamination may occur from fungal growth occurring between false and natural nails.

(3) Scrub hands and forearms with an approved liquid soap for 2 minutes, rinse well under cool/warm water.

(4) Repeat the cleaning process twice, lathering for 10 seconds, and rinse thoroughly. Some hand cleaning agents will irritate the skin if not thoroughly removed.

(5) Dry hands first, then forearms, with a disposable paper towel and then use that towel to turn off faucets if they are hand controlled.

b. Between patients:

(1) Lather hands and forearms for 10 seconds, rinse, and repeat lather step. Rinse thoroughly with cool/warm water.

(2) Dry hands first, then forearms, with a disposable paper towel and then use that towel to turn off faucets if they are hand controlled.

c. Surgical scrub:

(1) Remove all jewelry and clean fingernails with a clean plastic/wood stick. Examine hands for cuts and abrasions.

(2) Scrub nails, hands and forearms with an anti-microbial soap and a sterile brush or sponge for 7 minutes, using multiple scrub and rinse cycles.

(3) Rinse hands and forearms with cool water, starting at the fingertips and keeping your hands above the elbows. Let the water drip from your elbows, not your hands.

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(4) Dry with a sterile towel beginning with your hands and working toward your elbows.

(5) Apply gloves in an aseptic manner.

d. Repeat Hand Cleansing: Between patient appointments, before handling records, before lunch, after a break in routine, and before leaving the clinic. Always wash hands after removing gloves. Possible contamination through the gloves and rapid multiplication of bacteria under gloves makes this step in hand care the most important. Anti-microbial soaps help keep the multiplication of bacteria under gloves to a minimum.

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Appendix F

PERSONAL PROTECTIVE EQUIPMENT

1. Facemasks should be worn by all personnel at all times when treating patients and during operatory and instrument clean up, when spatter from contaminated materials is anticipated. Masks should provide a 95 percent filtration rate of particles 3-5 microns in diameter. It is desirable to change to a fresh mask on each patient. Masks may not be worn out of the work area. Masks may be worn on successive patients as long as:

a. Masks are not touched after the hands have been prepared for treatment.

b. Masks are changed reasonably often or when compromised.

c. Masks should always be changed between patients after splash procedures, such as high speed handpiece use or low speed prophylaxis polishing. These procedures spray moist debris, thereby providing a mode of transmission through the masks.

d. Face shields are not substitutes for masks, but are acceptable substitutes for glasses.

2. Eye Protection (Safety Glasses or Face Shields): Eyeglasses with solid side shields should be worn by all personnel when splatter or spatter is anticipated when treating patients, cleaning instruments, or during routine cleaning to protect the eyes from aerosol droplets, splatter and flying debris. Traditional eyeglasses offer reasonable protection; larger diameter lenses offer better protection. Face shields offer maximum eye protection. In addition, eyeglasses with solid side shields will be worn in the handling of chemicals such as developing fluids, surface disinfection fluids, etc., if the manufacturer recommends such protection. The eye can be a source of local or systemic infections or infectious diseases may be transmitted through the eyes. Additionally, debris can mechanically injure the eye. Consideration should be given to covering the patient's eyes during treatment, particularly when using the high speed handpiece. The larger the area protected, the less risk of infection through the eyes. Eyeglasses should be washed thoroughly with soap under flowing water following each patient treatment. The mechanics of washing glasses with soap and copious amounts of water removes large numbers of micro-organisms. Eye protection may be worn on successive patients as long as:

a. The eye protection is not touched after the hands have been prepared for treatment.

b. The eye protection is washed reasonably often, particularly following "splash procedures." Use an anti-microbial soap to wash eyewear. Disinfection of eyewear should be done carefully and proper selection of the disinfection agent is essential to prevent damage to the frames and lenses.

3. Gloves can play a significant role in the prevention of cross-contamination during all dental procedures. They protect the wearer by keeping micro-organisms out of cuts, abrasions and breaks in the skin. Hand cleanliness is extremely important when gloves are worn because bacteria can multiply rapidly in the warm, moist environment inside gloves. Gloves must be changed between patients. Hand washing should be repeated before applying new gloves and after removing gloves. Clean exam gloves should be used for all procedures where sterile surgeon's gloves are not required for sterile fields. Under no circumstances are exam or surgical gloves to be washed and reused. Nitrile latex utility gloves should be used for instrument contact clean-up procedures (e.g., scrubbing and autoclave bagging instruments).

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a. Personnel wearing gloves must keep fingernails trimmed short. Longer fingernails may cut or puncture gloves.

b. Gloves should be changed often, about every hour, when worn on the same patient and if hands perspire profusely. Perspiration may encourage growth of microbes on the skin, which may cause irritation. Washing with anti-microbial soap will discourage microbial growth.

c. Heavy duty utility gloves should be worn when handling contaminated instruments after the patients are dismissed. These gloves should be washed with soap and water before being removed from the hands. Rinse and dry the gloves. The washed and dried gloves should then be sprayed with an intermediate level disinfectant or sterilized in the autoclave.

4. All DENTAC personnel must wear the cranberry scrubs as personal protective equipment (PPE) when involved in patient care, clean-up procedures, and some laboratory procedures. Arm and lap coverage must be considered for procedures involving splash, spatter, or aerosols. PPE must be changed daily or when visibly soiled. All smocks/gowns/coats that are contaminated will be turned in for laundering in the employee's clinic. Smocks/gowns/coats or other personal protective clothing or equipment may not be worn outside the clinic, in areas designated as food consumption/break areas, classrooms, meeting rooms, offices, or any other "biologically clean" area. Protective garments can also be covered with clean over garments, white lab coats or blue coats for doctors, blue coats for others, to protect these areas. Ideally, personal protective equipment should remain in the operatory.

5. Lids should be placed on ultrasonic cleaners to reduce spread of aerosols into the dental treatment room.

6. Food and drink will not be consumed in the dental treatment area because bacterial aerosol particles can remain airborne long after a procedure is complete. Personal items will not be left out in patient treatment areas, clean-up/sterilization areas or operatories.

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Appendix G

CONTROL OF DENTAL TREATMENT ROOM AEROSOLS

1. Introduction: Even though much effort and time is devoted to the sterilization and/or disinfection of instruments and surfaces to prevent cross-contamination, it is also important to prevent disease transmission by dental aerosols. Aerosols in the work environment present a significant health hazard for both the DENTAC staff and patient.

2. Aerosol Management: Dental procedures usually generate aerosol particles that are 1.3 microns and larger in diameter. These particles can remain airborne for many hours after a dental procedure has been completed. When inhaled, particles less than five microns in diameter can bypass the body's protective filtering system and penetrate directly to the terminal bronchioles and alveoli of the lungs. Their effects can be harmful and cumulative. To reduce the potential risk to the dental staff and to patients, steps should be taken to reduce the levels of micro-organisms in dental aerosol, minimize the total amount of aerosols produced, and protect those persons exposed to dental aerosols.

a. Reducing Microbial levels in dental aerosols. The daily flushing of water lines and the installation of anti-retraction valves will reduce microbial levels in the dental unit water supply. In addition, it has been shown that patients who brush their teeth or rinse with a mouthwash before treatment will significantly reduce the microbial concentration of their oral flora. Three 10-second rinses can temporarily reduce a patient's oral microbial count by up to 97 percent. A rubber dam should also be used whenever possible to reduce the microbial level of dental aerosols.

b. Reducing aerosol production. The following techniques will aid in the reduction of aerosol production:

(1) High volume evacuation captures aerosols.

(2) Cleaning cavity preparations with water alone, rather than a combination of air and water spray, will reduce aerosol formation.

(3) Polishing restorations with rubber points and finishing burs produce less aerosolization than polishing with bristle brushes.

3. Hand scaling produces fewer aerosols than a sonic or ultrasonic scaler.

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Appendix H

INFECTION CONTROL FOR PATIENT TREATMENT

The fact that the patients we are treating on a day-to-day basis may be infected, either knowingly or unknowingly, poses one of the greatest challenges to modern dental practice. It is the responsibility of each health care provider to take adequate precautions to protect themselves and to prevent cross contamination between patients. The following procedures should be rigidly adhered to:

a. All infection control programs begin with screening and evaluation of patients. Patients will be screened at the dental chair by the health care provider (dentist, hygienist, DTA, etc.) prior to receiving any dental care. Any patient with a known active contagious disease, in an acute phase, with obvious clinical signs of illness, fever, malaise, etc. will not be provided routine dental treatment, but will be referred to a health care provider or their physician for disposition. Annotations to the medical history will be made as they are discovered. Be wary of patients not feeling well. Question them thoroughly. If there is any doubt, treatment should be postponed until further information is secured.

b. Medical history of all patients should be updated with each new periodic examination or prolonged time interval between treatments. Any seriously questionable response should be dealt with by postponing treatment until medical laboratory blood tests can be obtained and a treatment program planned.

c. Always treat every patient (at every visit) as if they are infectious. Use universal precautions.

d. Get immunized from all possible diseases, especially Hepatitis B.

e. Do not recap needles by hand. Use the scoop technique, cotton pliers or other method to hold the needle sheath for recapping.

f. Wash hands thoroughly in the approved manner.

g. Always wear mask and gloves. Wear sterile gloves for sterile field procedures. Wear two pair if extended exposure to body fluids is anticipated.

h. Wear appropriate clinical attire and proper personal protective equipment and change daily or if it becomes soiled.

i. Do not eat in the operatories.

j. Use rubber dams whenever possible to control aerosols.

k. Use high speed evacuation to control aerosols.

l. During clean up, handle sharp instruments with care using heavy duty gloves. Dispose of all sharps (needles, blades, broken instruments, endodontic files, wires, arch bars, burs, etc.) in approved puncture-proof containers.

m. Have patients rinse with an antiseptic mouthwash prior to any operative or surgical treatment.

n. Sterilize all instruments.

o. Flush handpiece/scaler lines for 3-5 minutes before first patient. Flush the same lines for 30 seconds before and after each patient.

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Appendix I

SURFACE DISINFECTION

1. Chairs, bracket tables, cuspidors, counter tops, etc. should be scrubbed daily with disinfectant soap as needed to maintain cleanliness. See TB MED 266 (31 May 1995) for further information.
2. In between each patient (if contamination has occurred):
 - a. Scrub surface with soap and water to remove gross debris.
 - b. Spray or wipe thoroughly with an approved disinfectant if the surface or object requires disinfection.
 - c. Allow to remain wet with disinfectant for the proper contact time depending on product instructions. Use plastic spray bottles properly labeled as to content, HAZCOM information, and date that the agent expires according to use instructions. Either spray surfaces or use a wipe-on method to apply the disinfectant. When spraying, avoid creating aerosols.
3. Hard to clean areas such as light handles, x-ray heads, cones, arms and control panels should be covered with plastic wrap, aluminum foil or impervious paper backing (remove between patients prior to removing gloves). Barrier protection methods are generally more effective than disinfecting.
4. All instruments will be thoroughly cleaned to remove debris prior to high level disinfection or sterilization.
 - a. Cleaning will be accomplished by using a mechanical device (e.g., ultrasonic cleaner) and when necessary, scrubbing with soap and water or detergent. Dental health care workers involved in cleaning and decontaminating instruments should wear heavy duty nitrile latex gloves to prevent hand injuries.
 - b. Metal or heat-stable dental instruments should be routinely sterilized between use by steam under pressure (autoclaving), dry heat, or chemical vapor. Biological monitors will verify the adequacy of sterilization cycles at least weekly. Chemical indicators or multi-parameter indicators should be used on the outside or inside of instrument packs to monitor adequacy of the sterilization cycle; however, chemical monitoring will not serve as a substitute for biological monitoring.
 - c. Air/water syringes will be sterilized if possible. All air/water syringe tips will be sterilized per manufacturer's recommendations. The syringe handle should be disinfected by washing and then high level disinfection. The disinfection procedure should consist of wrapping the handle in a gauze soaked in an approved disinfectant and placing the unit in a plastic bag for the recommended contact time. After disinfection (with clean gloves), the syringe should be wiped off with water to remove residual disinfectant and covered with a plastic bag or tri-flow syringe cover for future use. Handles for the saliva and high speed suction tips should be treated in the same manner. Use of disposable covers is an acceptable alternative to disinfection of air/water syringe handles; however, sterilization of the tip or use of disposable tips is still required.
5. Lids should be utilized on ultrasonic cleaners.
6. Disinfect all impressions prior to submission to the production area of the laboratory.

a. Following removal of an impression from the mouth, the impression should be rinsed under running water and gently scrubbed with a camel-hair

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brush and detergent to remove residual saliva, blood and debris. If this step is not followed, it will decrease the effectiveness of the disinfecting solution.

b. All impressions should be sprayed or dipped with an approved disinfectant and allowed to set for the proper contact time, then rinsed before being poured. MAKE CERTAIN THE DISINFECTANT IS COMPATIBLE WITH THE IMPRESSION MATERIAL.

7. General considerations for use of surface disinfectants.

a. Most disinfectants are corrosive. Either plastic or glass containers, without metal liners or metal lids are recommended. Manufacturers recommend the use of covered containers to prevent evaporation of the solution. Spray bottles are ideal. Label all containers with the proper HAZCOM data and any expiration dates.

b. Certain metals will corrode in many disinfectants (e.g. aluminum, 400 X stainless steel, brass, copper, and copper containing alloys). Any metal instrument placed in a disinfectant solution should remain in contact with the solution for NO MORE THEN THE RECOMMENDED CONTACT TIME. Rinsing the items with water or wiping with water following exposure will reduce the potential for corrosion.

c. Solutions used for soaking instruments and other items should be changed daily.

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Appendix J

MEDCOM/DENCOM GUIDELINES FOR THE CARE OF HIV INFECTED PATIENTS AND ORAL PROBLEMS RELATED TO HIV INFECTION

1. Patients with HIV infection must be afforded the same quality of care and confidentiality as any other patient. Patients will not be denied care because of their disease condition, and DHCWs will not refuse to care for eligible patients with HIV infection.
2. The decision to refer HIV-infected patients to hospital dental clinics or other special care settings should not be made solely on the basis of their HIV seropositive status. Rather, this decision should be based on sound medical principles. In the early stages of the disease, HIV-infected patients can be treated in routinely equipped dental treatment rooms without undue risk. Special care settings are normally not required unless the patient has demonstrated significant disease progression and immunologic deficiency. Universal precautions for infection control will be followed for all patients managed in both hospital and non-hospital clinics regardless of their HIV status or disease stage.
3. In conjunction with appropriate medical health care personnel, the dental records of all identified HIV-infected patients will be properly marked and annotated in accordance with AR 600-110, paragraph 2-3c(13). DA Label 162 (Emergency Medical Identification Symbol) will be affixed to the dental record jacket and the statement "Blood Donor Ineligible--V7262" will be placed in the "Explain any unusual medical problems" section of the DA Form 5570 (Health Questionnaire for Dental Treatment). Dental records for HIV-infected patients should be available for use in emergency treatment facilities.
4. Dental care for patients who are infected but show no signs of HIV related disease should be focused on preparing them for an immunodeficient state should their disease progress (i.e., the same approach used for pre-chemotherapy patients). All efforts should be made to eliminate active or potential foci of infection. Non-restorable teeth should be removed. Teeth involved with periodontal disease and symptomatic or partially erupted third molars should be evaluated for removal. Excellent oral hygiene habits must be established and maintained. Patients should be routinely followed to monitor the oral cavity for unusual or persistent infections or other conditions, which may herald the deterioration of the patient's immune system.
5. Dental treatment for patients with severe immunologic deficiency should be accomplished only after consultation with their primary physician. Appropriate antibiotic prophylaxis may be required prior to invasive dental procedures.
6. Patients who present with signs and/or symptoms suggestive of or compatible with HIV infection should be referred to the appropriate hospital service for consultation and testing as appropriate (AR 600-110, para 2-2b).

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Appendix K

DENTAL LABORATORY INFECTION CONTROL

1. General Precautions:

a. The dental laboratory production area must be isolated from possible transmission of pathogens or be properly prepared to prevent cross-contamination from patients and dental health care workers (DHCW) or to patients and other workers. Dental laboratory technicians must be properly evaluated for the exposure risk they face from bloodborne pathogens IAW OSHA Rule 29 CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens, Final Rule.

b. Dental laboratories must operate using one of two general techniques to manage infection control. The laboratory can be maintained as an isolated area and require all prostheses, impressions and other laboratory work to be disinfected before entering the laboratory (Clean Dental Laboratory). The second method requires a receiving area to isolate, evaluate, and decontaminate all materials entering the laboratory (Standard Dental Laboratory). Both methods are effective and the choice would be dependent on physical plant, laboratory location, and personnel distribution. The greatest necessity is effective communication between the laboratory and the user/client concerning the requirements that are necessary for case submission and the proper steps to ensure proper disinfection of materials both entering and leaving the laboratory. The Runion Dental Clinic laboratory is a Clean Dental Laboratory.

c. Universal precautions will be observed in the dental laboratory at all times. The use of universal precautions has eliminated the need for special handling of cases from "high risk" patients. All patients are treated as though they are capable of transmitting a bloodborne disease.

d. Chemical disinfectants and other materials must meet all Environmental Protection Agency (EPA) and American Dental Association (ADA) programs for acceptance and all employees must be properly trained to handle these materials.

2. Clean Dental Laboratory.

a. Receiving area. The dental laboratory managed under an isolated concept needs no special precautions in the receiving area. All disinfection procedures are done in the clinic by the DHCW before any material or item is shipped or delivered to the laboratory. All laboratory users must be aware that only biologically clean items may enter the laboratory. All laboratory users/clients should stamp or annotate on the work authorization, "This case was properly disinfected before shipment." (See section 4 for clinical disinfection techniques).

b. Shipping area. The area designated for final inspection, cleaning and/or disinfection, and shipping must be properly managed for all items leaving the dental laboratory. Laboratory policy and procedures will determine the level of contamination. Most dental laboratory operations do not expose cases to bloodborne pathogens, therefore, no special handling is needed during this stage. If some type of contamination by a possible bloodborne pathogen occurs during the production cycle, proper hospital-level disinfection procedures will be used.

(1) This area cannot be the same as the receiving area unless it has been properly cleaned and disinfected after all cases have been received. Technicians must wear proper PPE for the chemicals used at this station.

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Because of handling during shipment, all cases will be disinfected at the clinic level before placing in a patient's mouth.

(2) All case pans must be cleaned before they are returned to use for a new case.

c. Production Area. The production area is managed according to standard safety requirements. The items and materials in the production area have been disinfected and no special handling is needed. Laboratory staff must monitor use and entrance into this area to ensure no contaminated item or person is allowed. Some equipment and tools need special attention in all production areas of the dental laboratory and are discussed in section 5.

3. Clinical and Laboratory Disinfection.

a. Materials and techniques:

(1) Impressions:

(a) Reversible and irreversible hydrocolloid material must be handled carefully to prevent distortion. The impression should be gently scrubbed with a camel hair brush (artist's brush, NSN 8020-00-619-8929) and an anti-microbial (e.g., chlorhexidine gluconate) detergent to remove bioburden. Scrubbing gently with dental stone sprinkled into the impression will remove stubborn materials. Choice of disinfectant should be compatible with the material. The contact time recommended by the manufacturer must be observed. The impressions should be loosely wrapped in a plastic bag to prevent evaporation of the disinfectant during the contact period. The impression should be rinsed, handled in an aseptic manner and transferred to the production area of the laboratory.

(b) Silicone (vinyl polysiloxane) or rubber-based impression material may be handled in the same manner as Section 3a(1)(a). These materials are much more stable and can also be immersed in any hospital-level disinfectant except neutral glutaraldehyde for the contact time recommended by the manufacturer.

(c) Polyether impression materials may be handled in the same manner as section 3a(1)(a). Polyether materials CANNOT be immersed in a disinfectant solution.

(2) Prostheses, inter-treatment prosthodontic materials (occlusion rims, interim prostheses, occlusal registrations, etc.) and non-sterilizable equipment such as some facebow components must be cleaned with soap and water and disinfected with a hospital-level disinfectant. If ultrasonic cleaners are used for cleaning or the disinfecting step, care must be taken not to overheat the material or disinfectant while in the ultrasonic cleaner. Soaking these items in the disinfectant in a separate container or bag is the method of choice. It is important to remember that most immersion disinfectants can only be used once before they should be discarded. This makes individual-sized units the most cost effective method of handling. After the recommended contact time, the item is rinsed and handled in an aseptic manner for transfer to the laboratory production area. Iodophors, chlorine solutions, glutaraldehydes, or phenols are all acceptable for this step. Care must be taken not to exceed manufacturer's recommendations for contact time on metal components as corrosion could occur if not handled correctly. If the disinfection is occurring prior to patient contact, the item must be rinsed properly before placing in a patient's mouth. Items should never be shipped or stored in chemical disinfectants.

(3) Casts are the most difficult prosthodontic item to disinfect without causing damage. It is preferable to disinfect the impression so the cast will not have to be disinfected. However, inadvertent contamination or not indication of decontamination may make cast disinfection necessary. Casts

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may be set on their ends to facilitate drainage and sprayed with an iodophor or chlorine product, then rinsed and handled in an aseptic manner for transfer to the production area. If the cast is being disinfected for shipping, it should be allowed to dry before wrapping for shipment.

(4) Articulators, case pans, and other equipment that make no patient contact but require cleaning and disinfection should be evaluated based on their construction. Most can be disinfected by spraying with a hospital-level disinfectant, rinsing, drying, and lubricating (items with moving parts). Prevention of contamination by barrier protection and careful handling is preferable to using chemical agents on delicate equipment.

(5) Any item that will withstand standard heat sterilization should be sterilized before reuse.

4. Laboratory Equipment and Infection Control.

a. No matter how well infection control is practiced, some equipment should receive special attention even in the "clean" laboratory. This will place one more barrier in the path of possible cross-contamination and provide less chance of introducing a laboratory contamination during the production cycle.

(1) Polishing Lathe (Pumice and Dry):

(a) The pumice solution should be made by suspending the pumice in tincture of green soap. If the laboratory production area is properly isolated as outlined, no need exists for having separate pans for new and existing prostheses. The pumice must be changed daily and the machine must be cleaned daily. If a pumice/polishing machine is available outside the production area for DHCWs to use and no disinfection procedure are followed before contact with contaminated prostheses, then a unit dose concept of pumice dispensing is preferred. Disposable trays or lines should be considered in the latter case. This unit must be cleaned and disinfected daily.

(b) All brushes, rag wheels, and other laboratory tools should be sterilized or disinfected daily. Wet rag wheels should be stored in a disinfectant solution when not in use. If a pumice/polishing machine is available outside the production area for DHCWs to use and no disinfection procedures are followed before contact with contaminated prostheses, then a unit dose concept of accessory packaging should be available.

(2) Pressure pots must be cleaned and disinfected daily. Pots, which maintain warm water environments, are especially susceptible to micro-organism colonization.

(3) Bench tops and work areas should be cleaned and disinfected at the end of the work day or if advertent contamination occurs. Surface disinfection protocols are the same in the dental laboratory as in the dental clinic.

5. Special Considerations and Exceptions.

a. Severely contaminated prosthetic devices may have copious amounts of calculus and other tenacious bioburden. The first step is to remove this material so effective decontamination can occur. Stone and plaster removal solution in a beaker or plastic bag for soaking and placing in an ultrasonic

cleaner will remove most of the material. Follow this step with cleaning in a detergent and then disinfect with the procedures discussed in Section 3.

b. Some items may not be able to withstand disinfection procedures prior to entrance into the laboratory production area (i.e., staining and glazing porcelain, etc.) and exceptions to the basic principle of disinfecting first

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may be made. The procedure must be followed closely and proper cleaning and disinfecting must be done on equipment and areas that become contaminated during the process. Again, close communication with laboratory staff is essential.

6. Summary: Whatever laboratory infection control methods are employed, it is important to have excellent communication and cooperation between the laboratory and the user/client. The safety of the technician and patient is only ensured by confidence that both professionals used the proper procedures in the correct manner. Whenever a question exists as to the possible contamination of an item entering the laboratory system, it should be treated as contaminated until processed by prescribed methods.

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Appendix L

DENTAL RADIOLOGY

1. Introduction. Infection control standards similar to those used in the DTR must be maintained in the dental radiology area for the protection of both patients and radiology personnel.
2. Hand Washing. All personnel involved with radiology patients must follow a rigid hand washing policy (appendix E).
3. Film Holding Devices:
 - a. Sterilization. Film holding devices should be heat sterilized between patients.
 - b. Disinfection. If sterilization is not practical, bite blocks, aiming devices and arms should be thoroughly scrubbed and then immersed in an approved disinfectant between patients according to the manufacturer's instructions.
4. Panoramic Unit Bite Blocks. Disposable bite block covers should be used between patients. When disposable covers are not available, treat them as you would a film holding device. Use an approved disinfectant according to manufacturer's instructions.
5. Handling Intraoral Film Packets. Intraoral film removed from a patient's mouth should be placed directly into a disposable container such as a paper cup or towel and transferred to the darkroom. Wrappers should be discarded directly into a refuse container or into a disposable towel or cup to prevent contamination of the darkroom counter. An approved disinfectant will be used on counter tops, light switches and other hard surfaces in processing room. Disinfection of x-ray packets using accepted disinfectants is acceptable. Barrier protection of film is also acceptable.
6. Radiology Equipment.
 - a. Chair, arm rests, x-ray machine and it's controls (pay special attention to areas touched by hand during radiology procedures) should be sprayed or wiped with an approved disinfectant for the appropriate time IF THEY BECOME CONTAMINATED.
 - b. Paper or plastic headrest covers when used shall be replaced after each patient before gloves are removed. (Do not allow disinfectant liquid to leak into the tubehead seams on the exposure button switch.)
7. Control Surfaces. Impervious paper or plastic covers can be applied to cones, arms and controls.
8. PPE. Radiology technicians should wear proper PPE.

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Appendix M

CLINIC CHECKLIST GUIDELINES FOR INFECTION CONTROL

1. All dental health care workers wear surgical masks, eyewear, gloves, or other appropriate PPE as needed.
2. Clear plastic wrap, aluminum foil, or impervious backed paper covering on light handles, x-ray unit heads, cones, arms, control panels, and other areas as needed.
3. Handwashing between patients and after glove removal.
4. Disposable syringes, needles, scalpel blades handled and disposed of IAW AR 40-5.
5. Needles should not be recapped by two-hand technique.
6. Sterilization of all instruments preferred (autoclave).
7. When sterilization is not feasible, use EPA approved high level disinfectant.
8. Dental health care workers cleaning and decontaminating instruments wear heavy duty nitrile latex rubber gloves.
9. Biological monitoring of sterilizer cycles (TB MED 266).
10. Chemical indicators on the inside and/or outside of instrument packs.
11. Countertops/bracket tables wiped with absorbent toweling and appropriate cleaner/disinfectant and allowed to remain for the proper time interval if contaminated during patient treatment.
12. Handpiece sterilization--follow maintenance instructions.
13. Ultrasonic scalers, electrosurgery handles, light curing units need proper barrier protection or disinfection. They may be sterilized or:
 - a. Wiped with an approved disinfectant-soaked pad.
 - b. Let the disinfectant remain for the recommended contact time.
 - c. Remove the chemical residue if necessary with damp cloth.
 - d. Barrier protection is an acceptable alternative to disinfection.
14. All general and infectious waste handled and disposed of IAW AR 40-5 and local regulations. (MEDDAC Reg 40-131)

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Appendix N

DENTAL RADIOLOGY CHECKLIST GUIDELINES FOR INFECTION CONTROL

1. Gloves must be worn at appropriate times.
2. Impervious paper or plastic cover applied to x-ray cones, arms, and controls as needed.
3. Surface disinfectant used for chair (if vinyl), headrest, armrest, x-ray machine and its controls if contaminated. (Pay special attention to areas touched by hand during x-ray procedure.)
4. Allow surface disinfectant adequate contact time, then remove residue if necessary.
5. Place film in plastic cup or bag, label appropriately.
6. Appropriate surface disinfectant used to disinfect countertops, light switches and other hard surfaces in processing room if contaminated.
7. Radiology technician should wear proper PPE.

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Appendix O

LABORATORY INFECTION CONTROL--DAILY CHECKLIST

1. The pumice pan liner should be changed/cleaned at the end of each working day.
2. Pumice can be mixed with an approved disinfectant solution rather than water. The contents of the pumice pan should be changed daily.
3. Rag wheels, bristle brushes and felt cones that are used with pumice should be soaked in a plastic container filled with an approved disinfectant solution between use. The solution must be changed daily.
4. Rag wheels used for polishing other than with pumice (Tripoli, high shine, etc.) must be collected at the end of the day, packaged and logged in for sterilization. The laboratory personnel are responsible for this procedure as well as retrieving the items at the end of the sterilization cycle and returning them to the appropriate storage areas in the laboratory. BRISTLE BRUSHE AND CHAMOIS WHEELS CANNOT BE AUTOCLAVED WITHOUT HARMING THE ITEMS. Soak contaminated bristle brushes and chamois wheels overnight in an approved disinfectant solution.
5. Environmental surfaces (laboratory benches, work surfaces and sinks) must be sprayed with an approved disinfectant solution at the end of the day if contamination has occurred. Gloves should be worn to wipe down environmental surfaces with either solution-saturated paper towels or sponges. The solution should be left on the surfaces for the time recommended.
6. All repairs and prostheses should be disinfected for the proper time BEFORE the item enters the laboratory production area. Before returning repairs and prostheses to the treatment area, the items should be cleaned properly. Rinse items with water after cleaning.
7. It is necessary that laboratory personnel observe the checklist for their own protection.
 - a. Personnel working in the dental laboratory should exercise personal hygiene as outlined in appendix D.
 - b. The cleaning and disinfecting of impressions, prosthesis, etc. may help in reducing cross-contamination to laboratory personnel. Lab personnel must wash their hands frequently when handling cases and especially when changing cases. A laboratory infection control checklist will be readily accessible to all laboratory personnel.
8. A plan must be in place to handle any situation that may arise in the production area that contaminated a prosthesis or area with blood or body fluids from a technician.

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Appendix P

SHARPS MANAGEMENT

Definition: Sharps are any object or instrument with the potential of causing a percutaneous injury to the patient, care provider, or ancillary personnel. All disposable sharps, contaminated (blood aspiration) anesthetic carpules, and broken glass will be disposed of in proper sharps containers.

1. All hypodermic-type needles should be passed with the protective cover in place. Recapping is required due to the incremental use of dental anesthetic carpules. The user should remove the cover, use the instrument, and recap the needle. Recapping the needle shall NOT be done by a two-handed method. Cotton pliers, approved devices, or a one-handed scoop technique will be used to recap. No unprotected needles will be in the operating field. No unprotected needles will be passed between personnel. Shearing or breaking contaminated needles is not allowed.
2. Dental burs and scaler tips shall not be left in the handpiece after the care provider finishes use of the handpiece. The burs and scaler tips shall be removed and placed in a dampen dish or other suitable container for cleaning.
3. Knife blades, suture needles, and other sharps should be accounted for first during clean-up. These sharps should be handled with cotton pliers or forceps and disposed of in the proper manner before the clean-up proceeds.
4. Endodontic instruments should not be passed to ancillary personnel for cleaning during endodontic procedures. The care provider should have supplies available to treat the instrument as he/she deems appropriate.
5. No contaminated sharps (knife blades, etc.) can be taken from the patient care area into the laboratory. All materials that enter the laboratory must be properly disinfected.
6. During clean-up all sharps should be handled as outlined. Personnel must wear heavy-duty nitrile latex cleaning gloves during instrument cleaning operations. Disposable sharps should be removed from the cleaning area first. All reusable instruments that have potential for percutaneous injury should be handled carefully and packaged for sterilization.
7. Most sharps injuries are caused by careless handling of instruments.
8. If an injury does occur while handling sharps, consult the Team NCOIC and the Risk Management Officer. (Appendix T)

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Appendix Q

INFECTIOUS WASTE

1. The CDC and OSHA have defined infectious waste in dentistry. The following definition from OSHA is found in the ADA Regulatory Manual. See TB MED 266 for further information. "Infectious waste means blood and blood products, contaminated sharps, pathological wastes, and microbiological waste."

2. The ADA makes a further clarification by stating "for most dental offices only sharps, extracted teeth and blood or other potentially infectious body fluid soaked items fit the OSHA definition of infectious wastes." The following items are generally considered infectious waste:

a. Contaminated sharps.

b. Teeth and tissue that are to be discarded. Teeth belong to the patient. Most states do not consider teeth that are given back to the patient a significant health hazard. Army policy allows the return of extracted teeth to patients if the care provider feels no community health hazard will be created by this act. Teeth can also be disinfected in a 10 percent solution of sodium hypochlorite before allowing patients to take them.

c. Blood and body fluids in bulk.

d. Blood or other potentially infectious body fluid soaked items (gauze, cotton, etc.)

3. Item number 2a is handled according to appendix P.

4. Item 2c is disposed of in the local sanitary sewer system by carefully pouring into a drain access.

5. Items number 2b and 2d can be handled in the following manner: All tissue, teeth, and blood or other potentially infectious body fluid soaked (enough fluid to produce a drop when squeezed) items will be gathered during patient cleanup and placed in leak-proof, puncture resistant, plastic bag lined receptacles. Bag used must be sturdy, and tear resistant, 3 millimeters in thickness, and of a red color that denotes Regulated Medical Waste (RMW). Red bags will not be used for any other purpose. The bag will be in a designated hard walled container. Red bags will not be placed in designated sharps containers. When sealing, the bag will not be shaken or squeezed in an attempt to reduce volume. RMW will never be compacted prior to disposal. Once the bag is sealed, it will be marked with the date and the point or origin. This will aid in identification should the RMW be mishandled. Sealed bags will be carried by their necks. Bags will not be lifted or held by the bottom or sides. Bags should be carried away from the body. Care should be taken to ensure bags are not broken, opened or dropped. General purpose nitrile latex, heavy duty, utility work gloves will be worn when handling waste.

Q-1

Appendix R

TUBERCULOSIS IN HEALTH CARE SETTINGS

1. The CDC and OSHA have set guidelines for the safety of health care workers and patients in regard to preventing the transmission of tuberculosis. The guidelines vary for the type of health care setting and require certain work practice and engineering controls.

2. Hospital Dental Facilities.

a. All hospital-based dental care facilities are required to adhere to the isolation and treatment protocols determined by the medical facility in which they are located. Routine dental treatment of active tuberculosis patients should be postponed until medical authorities clear these patients as non-infectious. If treatment of an active tuberculosis patient becomes necessary, all PPE and/or other requirements of the medical facility must be met. Treatment of dental emergencies in the hospital isolation area would be the method of choice to reduce exposure of other dental patients and personnel in the dental treatment facility.

b. OICs of these facilities will contact the appropriate medical personnel to determine if their clinic will be serving a large enough population of "patients who are at high risk for tuberculosis" as to require ventilation modification of waiting areas or treatment rooms. Consultation with DENCOM is encouraged in determining this requirement. This would be an extremely rare occurrence.

3. Dental Settings. Comments in quotation marks are taken from the CDC Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Facilities, 1994, MMWR 43, #RR-13, 1994. The risk assessment mentioned in the first bullet must be done in writing and placed with your exposure control documents. The Preventive Medicine section of your local medical facility may be able to provide the information needed. Each dental unit should also contact the local medical facility to determine if a dental officer needs to be placed on the TB respiratory protection team in case the need arises to have a dental health care provider provide dental treatment in a TB isolation area.

"In general, the symptoms for which patients seek treatment in a dental care setting are not likely to be caused by infectious TB. Unless a patient requiring dental care coincidentally has TB, it is unlikely that infectious TB will be encountered in the dental setting. Furthermore, generation of droplet nuclei containing *M. tuberculosis* during dental procedures has not been demonstrated. Therefore, the risk of transmission of *M. tuberculosis* in most dental settings is probably quite low. Nevertheless, during dental procedures, patients and dental workers share the same air for varying periods of time. Coughing may be stimulated occasionally by oral manipulations, although no specific dental procedures have been classified as "cough inducing." In some instances, the population served by a dental care facility, or the DHCWs in the facility, may be at relatively high risk for TB. Because the potential exists for

transmission of *M. tuberculosis* in dental settings, the following recommendations should be followed:

"A risk assessment should be done periodically, and TB infection control policies for each dental setting should be based on the risk assessment. The policies should include provisions for detection and referral of patients who may have undiagnosed active TB; management of patients with active TB, relative to provision of urgent dental care; and employer sponsored DHCW education, counseling, and screening.

R-1

"While taking patient's initial medical histories and at periodic updates, dental DHCWs should routinely ask all patients whether they have a history of TB disease and symptoms suggestive of TB.

"Patients with a medical history or symptoms suggestive of undiagnosed active TB should be referred promptly for medical evaluation of possible infectiousness. Such patients should not remain in the dental care facility any longer than required to arrange a referral. While in the dental care facility, they should wear surgical masks and should be instructed to cover their mouths and noses when coughing or sneezing.

"Elective dental treatment should be deferred until a physician confirms that the patient does not have infectious TB. If the patient is diagnosed as having active TB, elective dental treatment should be deferred until the patient is no longer infectious.

"If urgent dental care must be provided for a patient who has, or is strongly suspected of having, infectious TB, such care should be provided in facilities that can provide TB isolation. DHCWs should use respiratory protection while performing procedures on such patients.

"Any DHCW who has a persistent cough (i.e., a cough lasting >3 weeks), especially in the presence of other signs or symptoms compatible with active TB (e.g., weight loss, night sweats, bloody sputum, anorexia, and fever), should be evaluated promptly for TB. The DHCW should not return to the workplace until a diagnosis of TB has been excluded or until the DHCW is on therapy and a determination has been made that the DHCW is noninfectious.

"In dental care facilities that provide care to populations at high risk for active TB, it may be appropriate to use engineering controls similar to those used in general-use areas (e.g., waiting rooms) of medical facilities that have a similar risk profile."

4. OSHA Recommendations. Current OSHA recommendations concerning tuberculosis and dentistry are found in the Federal Register dated October 12, 1993, Draft Guidelines for Preventing the Transmission of Tuberculosis in Health Care Facilities, Second Edition: Notice of Comment Period, page 52828, para 8, Dental Offices. That guidance is reproduced in the following section.

a. OSHA Guidelines: The following excerpt is from the 1993 OSHA guideline, which is NOT the final regulation.

"8. Dental Offices.

"--During dental procedures, patients and dental workers share the same airspace for varying lengths of time. Aerosols of oral fluids and materials may be generated, and, on occasion, coughing may be stimulated by oral manipulations. No specific dental procedures have been classified as "cough-inducing." In light of these observations, the following considerations appear prudent in dental settings.

" --During initial medical history and periodic updates, DHCWs should routinely ask all patients about a history of TB disease and symptoms suggestive of TB.

" --Patients with history and symptoms suggestive of active TB should be promptly referred for evaluation for possible infectiousness.

" --Elective dental treatment should be delayed until a physician confirms that the patient does not have infectious TB. If the patient is determined to have infectious TB, elective dental treatment should be deferred until the patient is no longer infectious.

R-2

" --If urgent dental care must be provided for a patient who has, or is strongly suspected of having infectious TB, TB isolation practices should be implemented. DHCWs should use respiratory protection while performing procedures on such patients.

" --DHCWs who work in a facility where there is a likelihood of exposure to patients with infectious TB should be included in an employer sponsored PPD testing program."

R-3

Appendix S

LATEX ALLERGY POLICY

1. Latex is a milky white fluid that is produced by cells of various seed plants and may take the form of synthetic rubber or a plastic obtained by polymerization.

2. Adverse reactions to latex products include an irritant dermatitis, immediate or Type I allergic reaction, or a delayed contact of Type IV allergic reaction. Symptoms may include the following:

- Puritis (itching), erythema, edema
- Conjunctivitis
- Rhinitis
- Asthma
- Urticaria (hives)
- Abdominal cramping or diarrhea
- Hypotension
- Anaphylaxis

3. The usual criteria for a diagnosis of latex allergy is a history of typical signs and symptoms following exposure on multiple occasions, a positive test (alastat, CAP) for latex specific IgE, or the absence of significant improvement with avoidance of latex products.

4. The typical person(s) who might exhibit latex allergy are likely to be older, have history or other allergies, have had positive skin tests to other allergens, or have a family history of latex allergy.

5. The following procedures should be implemented for the protection of all patients.

- a. Inquire about allergy history when reviewing the medical history.
- b. Have non-latex products available in case of suspected allergy problem.

- c. Refer for medical evaluation if needed.

6. For documented latex allergy patients, the following recommendation should be followed.

- a. Treat patient at the start of the workday to minimize airborne contamination of latex components in the clinic.
- b. Clean and prepare the operatory the night before using no latex containing products (gloves, etc.). Remove all latex products from the operatory.

- c. Use an instrument pack that was prepared without contact with latex products. Clean and pack for sterilization using non-latex gloves.
- d. Set up operator with non-latex products.
- e. Allow no latex into the operator while the patient is present.
- f. Use non-latex gloves such as vinyl or nitrile rubber for treatment.
- g. Carefully evaluate exposure potential if patient must be seen in other clinical areas such as radiology.

S-1

- 7. The dental health care worker who suspects they might have latex allergy should be evaluated by an occupational health counselor and have medical testing to determine if latex is the allergen causing problems. In the interim, they should avoid latex products and use alternative materials.
- 8. Potential employees in clinical dentistry should be evaluated before employment for potential problem concerning a latex allergy.

S-2

Appendix T

PERCUTANEOUS (NEEDLESTICK)/SPLASH INJURY PROCEDURES

1. PURPOSE. This policy provides guidance to clinic personnel, supervisors and OIC/NCOICs concerning actions to be taken in the event of puncture, laceration, or splash injuries involving instruments or materials contaminated with blood or other potentially infectious material (OPIM).

2. REFERENCE.

a. Needlestick procedure flowchart, treatment chart, and clinician's hotline are located at the end of this appendix.

b. DENTAC Infection/Exposure Control Pam 40-5-1.

c. Related publications are listed in appendix A.

3. RESPONSIBILITIES.

a. Safety NCO will ensure the proper forms are completed and forwarded to the appropriate parties.

b. DENTAC Risk Manager will monitor follow-up procedures and report conclusions to the Quality Improvement Committee.

c. Occupational Health will maintain the employee's records and will conduct the follow-up testing.

d. Prime Time Clinic or Outpatient physician will evaluate and treat the injured employee.

4. POLICY.

a. All used needles, burs, blades, endo files/broaches, and any other sharps will be disposed of in a sharps container. These are available in each treatment area. Puncture-proof containers will be used to carry sharps to the sharps containers.

b. After use, needles may be recapped prior to removal. Use of any method that could result in a needlestick must be avoided. The needle may be recapped by laying the cap so that the needle can be guided into it without holding the cap or by utilizing a cap holding device.

c. Report all needlesticks, punctures, lacerations or splashes to mucous membranes (i.e. eyes or mouth) to the supervisor or NCOIC immediately.

5. PROCEDURES.

a. Self Aid: The injured employee with an accidental parenteral (e.g., needlestick or cut) or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other potentially infectious body material (OPIM) will complete the self aid process immediately following the injury and prior to any other activity.

(1) If skin is broken, bleed the area by pressing on the surrounding tissue to flush the wound of any contamination.

(2) Wash the area with an approved bactericidal solution.

(3) Apply pressure dressing or bandage as needed.

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(4) For splashing into the eyes, flush with water only.

b. Injured Employee:

(1) Will report the injury immediately to the Safety NCO.

(2) Will report to the Outpatient or Prime Time Clinic within a 2-hour window for further treatment.

(3) Will report with military medical records (if available) and the Safety NCO-completed forms.

(4) Will be responsible for obtaining the HIV tests and ensuring the results are forwarded to Occupational Health.

c. Safety NCO: Will fill out the following:

(1) Military employees: DA Form 285, Record of Injury.

(2) Civilian Employees: DA Form 285, Record of Injury; and CA-1, Federal Employee's Notice of Traumatic Injury and Claim, items 17 to 38.

d. Source Patient: Accompany the injured employee to the Outpatient or Prime Time Clinic if possible. If the source patient cannot go, his/her name and social security number, if known, should be forwarded to Occupational Health for the required follow-up. The source patient will be assessed clinically and epidemiologically by his/her attending physician.

e. Outpatient or Prime Time Clinic Physician:

(1) Notifies the source patient's attending physician of the required assessment.

(a) Military: HIV, hepatitis B panel, liver enzymes and renal panel will be drawn.

(b) Civilians: Will be given the option of submitting to the required assessment. Refusal will be documented in employee's medical record.

(c) Lab slips should be labeled Occupational Health to ensure that the results are reported to Occupational Health for enclosure in the injured employee's record. If results are positive, Occupational Health will notify the attending physician of the source patient's results.

(2) Evaluates and treats the injured employee. All treatment and follow-up will be confidential.

(a) HIV and hepatitis B panel will be performed and results forwarded to Occupational Health.

(b) HBIG or Human Serum Globulin (ISG) and tetanus toxoid will be administered if indicated.

(c) Completes DA Form 285 and documentation in medical records.

(3) Ensures the following forms are complete and forwarded to the Occupational Health Section:

(a) Military: DA Form 285

(b) Civilian: DA Form 285 and CA-1, items 17-28.

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f. Occupational Health:

(1) Will maintain the injured employee's records and will conduct the follow-up testing.

(2) Determine the need for hepatitis vaccination or follow-up.

(3) HIV testing will be conducted at 3, 6, and 12 months from the date of injury.

(4) Will remind individuals of the follow-up dates.

**Please refer to flow chart, treatment chart, and free Clinicians Hotline number located at the end of this appendix.*

6. TREATMENT. The U.S. Department of Health and Human Services CDC recommendations from 1996 are as follows:

a. Zidovudine (ZDV) should be considered for treatment of all exposures involving HIV-infected blood or OPIM.

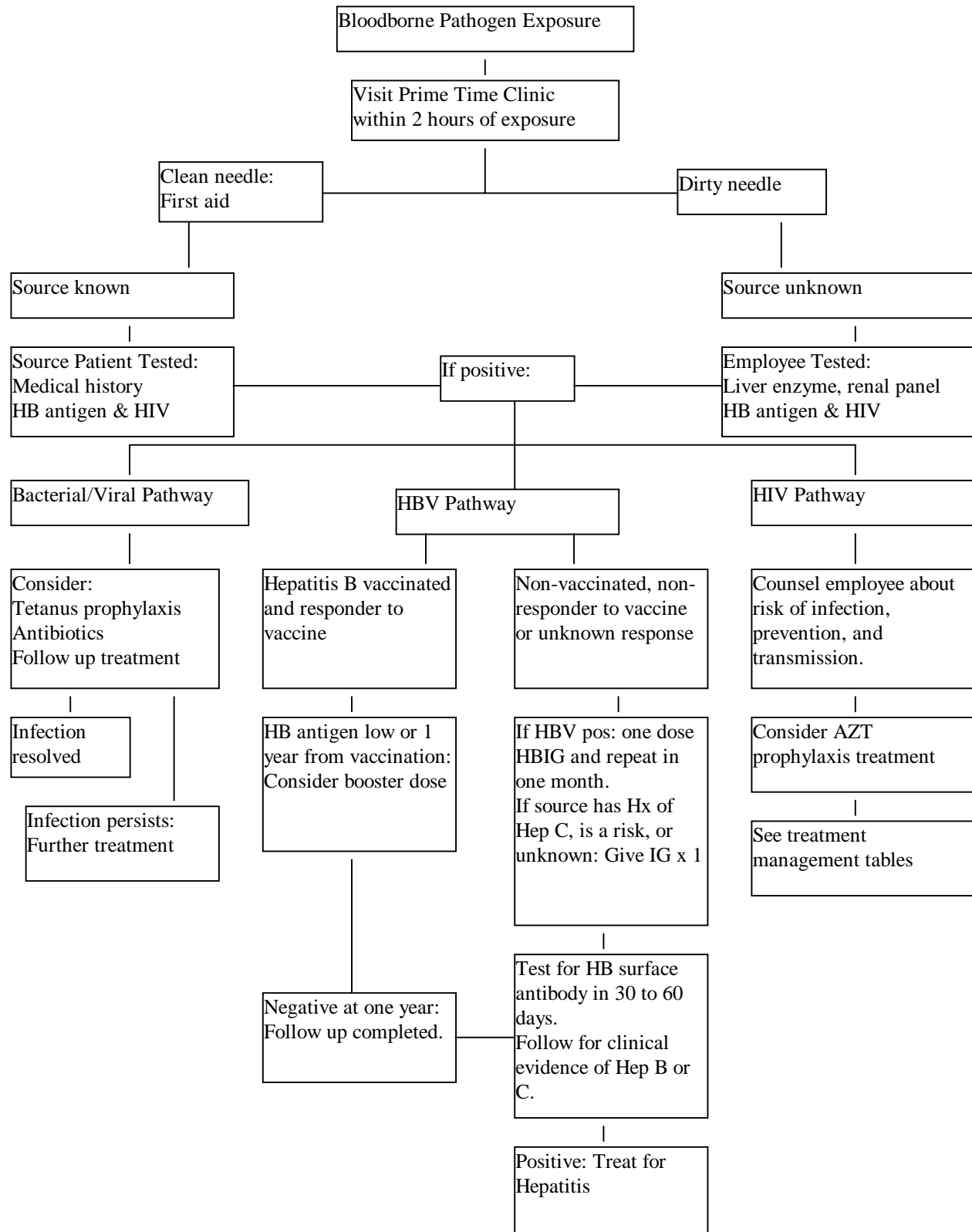
b. Lamivudine (3TC) should be added to ZDV for increased effectiveness and for use against ZDV resistant types of virus. Used in combination, ZDV and 3TC are very effective in treating HIV infection, and considerable information shows that they are safe when used for a short time.

c. Indinavir (IDV) should be added for the highest risk exposures, such as those involving a larger volume of blood with a larger amount of HIV. IDV is a potent antiviral drug that appears to be safe when taken for a short period, although less information is available about the safety of this drug.

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NATIONAL TOLL FREE HOTLINE
For CLINICIANS TREATING BLOODBORNE
PATHOGEN EXPOSURE
1-888-448-4911

Appendix U

INFECTION CONTROL INSPECTION CHECKLIST

Runion Dental Clinic

Date: _____

On a scale of 1 (Always) to 5 (Never)

- | | |
|-----------|---|
| 1 2 3 4 5 | 1. Are all Dental Health Care Workers wearing masks, eyewear with side shields, gloves, or other appropriate PPE as needed for the procedure being performed? |
| 1 2 3 4 5 | 2. Are scrubs and overgarments being used at the appropriate times? |
| 1 2 3 4 5 | 3. Are clear plastic wraps, aluminum foil, or impervious backed paper covering being utilized on light handles, x-ray unit heads, cones, arms, control panels, and other areas as needed? |
| 1 2 3 4 5 | 4. Is proper handwashing between patients and after glove removal being performed? |
| 1 2 3 4 5 | 5. Are disposable sharps being handled and disposed of properly? |
| 1 2 3 4 5 | 6. Are needles being recapped properly using a one-hand technique? |
| 1 2 3 4 5 | 7. Are all appropriate instruments being sterilized? |
| 1 2 3 4 5 | 8. Are EPA approved high level disinfectants being used properly? |
| 1 2 3 4 5 | 9. Are DHCWs cleaning and decontaminating instruments wearing heavy-duty nitrile latex rubber gloves? |
| 1 2 3 4 5 | 10. Is biological monitoring of the sterilization cycles being properly performed and logged? |
| 1 2 3 4 5 | 11. Are chemical indicators being utilized on the inside and/or outside of instrument packs? |
| 1 2 3 4 5 | 12. Are contaminated countertops and bracket tables being wiped with absorbent toweling and then disinfected for the proper contact time? |
| 1 2 3 4 5 | 13. Are all handpieces and motors being properly maintained and sterilized? |
| 1 2 3 4 5 | 14. Are ultrasonic scalers, electrosurgery handles and light curing units being properly protected with barriers or disinfected? |
| 1 2 3 4 5 | 15. Are all non-regulated and regulated medical wastes being disposed of in the appropriate manner? |
| 1 2 3 4 5 | 16. Are all burs either industrial clean or prepackaged and sterilized? |
| 1 2 3 4 5 | 17. Are puncture-proof containers available and used for all patients? |
| 1 2 3 4 5 | 18. Are all impressions properly disinfected before being sent to the lab? |
| 1 2 3 4 5 | 19. Are patient and DHCWs protective eyewear washed and cleaned between patients? |
| 1 2 3 4 5 | 20. Are universal precautions being utilized for all patients? |

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- | | |
|-----------|---|
| 1 2 3 4 5 | 21. Is a schedule of operatory surface disinfection posted in each operatory? |
| 1 2 3 4 5 | 22. Are air/water syringes and handpieces run for 3 minutes at the beginning of each day and run for 30 seconds between patients? |
| 1 2 3 4 5 | 23. Are all sterile packs inspected for expiration or contamination? |

GLOSSARY

Section I Abbreviations

ADA

American Dental Association

DENCOM

U.S. Army Dental Command

DIPC

Dental In-Processing Center

DTR

Dental Treatment Room

EPA

Environmental Protection Agency

NCOIC

Noncommissioned Officer-in-Charge

OIC

Officer-in-Charge

OPIM

Other Potentially Infectious Materials

OSHA

Office of Safety and Health Administration

OTSG

Office of the Surgeon General

QI

Quality Improvement

SOP

Standing Operating Procedure

Section II

Terms

1. **Antiseptic:** Chemical agent applied to tissue to inhibit growth of microorganisms.

2. **Asepsis:** A pathogen-free condition.

3. **Aseptic technique:** Central to any program of infection control is the concept of Aseptic Technique. Essentially, before, during and after patient treatment--clean, sterile, disinfected and aseptic materials should not contact contaminated materials. When this occurs, the barrier of infection control is broken and the possibility for a condition of cross-contamination is more likely, if not actual. Examples of breaks in aseptic technique are:

a. Contaminated hands or gloves touching clean, sterile or disinfected materials: Always use clean/sterile gloves to touch clean materials especially when setting up for patient care. If gloves become contaminated, change them before handling clean/sterile materials or use clean sterile pick-up instruments. It is obvious during patient treatment that gloves and instruments will be contaminated by the patient's oral cavity, but such

contaminates should not be allowed to contact materials used on other patients or break universal precaution barriers. Don't put a gloved hand in your mouth, for example. Don't use soiled gloved hands to write dental records or answer the telephone.

b. "Clean" materials touching unclean surfaces:

(1) Instruments must be placed on clean disinfected surfaces, sterile towels or paper barriers.

(2) Sterilized handpieces must not be attached to non-disinfected hoses or unit handpiece holders.

(3) Cover or disinfect light handles or operatory lights.

(4) Adjust chair controls with glove wrapper paper (sterile side) or cover chair controls with plastic materials or surface disinfect between patients.

4. **Barriers:** Items of equipment and infection control techniques designed to interrupt potential infection and protect patients and health care workers. Masks, glasses/face shields, gowns, drapes, covers, disinfecting processes and sterilization are examples of barriers. Autoclave bags, not touching records or pens and pencils while gloved are also barriers, etc.

5. **Blood:** Human blood, human blood components, and products made from human blood.

6. **Bloodborne Pathogens:** Pathogenic micro-organisms that are present in human blood or certain body fluids and can cause disease in humans. These include, but are not limited to, Hepatitis B virus (HBV) and Human Immunodeficiency Virus (HIV).

7. **Body-Substance Isolation (BSI):** A consistent approach to infection control in preventing the transmission of potentially infectious agents from body substances. All human blood and body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens. Personal protective equipment is worn as appropriate for any actual or reasonably anticipated contact with blood and other potentially infectious materials (OPIM).

8. **Contaminated:** The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

9. **Contaminated Laundry:** Laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.

10. **Contaminated Sharps:** Any contaminated object that can penetrate the skin including, but not limited to, needles, burs, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

11. **Decontamination:** The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

12. **Dental Assistant (DA):** An individual who assists the primary dental care provider in the treatment of patients.

13. **Dental Hygienist (DH):** An individual specially trained to perform dental hygiene procedures for the dental patient under the supervision of a dental officer. This may include taking of impressions and the exposing of dental intraoral radiographs.

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14. **Dental Therapy Assistant (DTA):** An individual specially trained to perform certain reversible dental procedures directly for the dental patient while under the supervision of a licensed dental officer or dentist. This may involve dental hygiene procedures as well as the placement of dental restorations.
15. **Disinfection:** The destruction or inhibition of most pathogenic bacteria while they are in their active growth phase and the inactivation of most viruses is termed disinfection. In most cases, the disinfecting process does not kill spores and cannot be easily verified.
16. **Disinfectant:** Chemical agent applied to surfaces to inhibit growth of organisms and in the case of EPA category I to kill HIV, HBV, TB viruses. The term disinfectant in this document will refer to an EPA registered hospital-level chemical (kills Mycobacterium tuberculosis, lipophilic viruses, and hydrophilic viruses).
17. **Debridement:** A process, which removes gross debris or residues and reduces the number of micro-organisms on non-living material.
18. **Engineering Controls:** Controls (sharps disposal containers, removal of contaminant at the point of generation, self-sheathing needles, splash guards, etc.) that isolate or remove the bloodborne pathogens hazard from the workplace.
19. **Enzyme Linked Immunosorbent Assay (ELISA):** A screening test designed to identify antibody produced against HIV.
20. **Exposure Incident:** A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from and/or during the performance of an employee's duties.
21. **Health Care Workers (HCW):** All MEDDAC/DENTAC employees, students, contract employees and volunteers whose work may involve direct contact with human blood, body fluids, and tissues.
22. **Hepatitis B Virus (HBV):** The virus implicated in the transmission of Hepatitis B.
23. **Human Immunodeficiency Virus (HIV):** A human retrovirus specifically implicated in the etiology of Acquired Immune Deficiency Syndrome and AIDS Related Complex. Formerly known as Human T-Lymphotropic Virus Type III (HTLV-III) or AIDS-Associated Retrovirus (ARV).
24. **Nosocomial Transmission:** Pertains to transmission of a disease that originated in the health care setting.
25. **Occupational Exposure:** Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from and/or during the performance of an employee's duties.
26. **Other Potentially Infectious Materials:**
- a. The following human body fluids: Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
 - b. Any unfixed tissue or organ (other than intact skin) from a human (living or dead).

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c. HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

27. **Personal Protective Equipment (PPE):** Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

28. **Regulated Medical Waste (RMW):**

a. Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials.

b. Waste that is potentially capable of causing disease in man and may pose a risk to either individuals or community health if not handled or treated properly. Consists of the following classes:

Class I	Culture Stock and Vaccine
Class II	Pathological Waste
Class III	Blood and Blood Products
Class IV & VII	All Used and Unused Sharps
Class V	Animal Waste
Class VI	Isolation CDC Risk Group IV Group

29. **Sharps:** Any object that can penetrate the skin including but not limited to needles, burs, scalpels, broken capillary tubes and dental wires.

30. **Source Individual:** Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to hospital and clinic patients, human remains, and individuals who donate or sell blood or blood components.

31. **Sterilization:** The process by which all forms of life within an environment are totally destroyed, including viruses and spores. Heat sterilization can be monitored and verified. The sterilization by high level disinfectant solutions cannot be easily monitored or verified.

32. **Universal Precautions:** Because the health status of all patients can not always be completely ensured, basic infection control means that all patients must be treated as if their blood and certain body fluids are potentially infectious for HIV, HBV, and other bloodborne pathogens. Universal precautions refer to systems designed to protect workers and patients. These are most obviously masks, gloves, glasses; face shields, gowns and smocks; but also includes the use of autoclave and surface disinfecting techniques, etc., as well as sharps safety and barrier techniques.

33. **Work Practice Controls:** Controls that educe the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

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